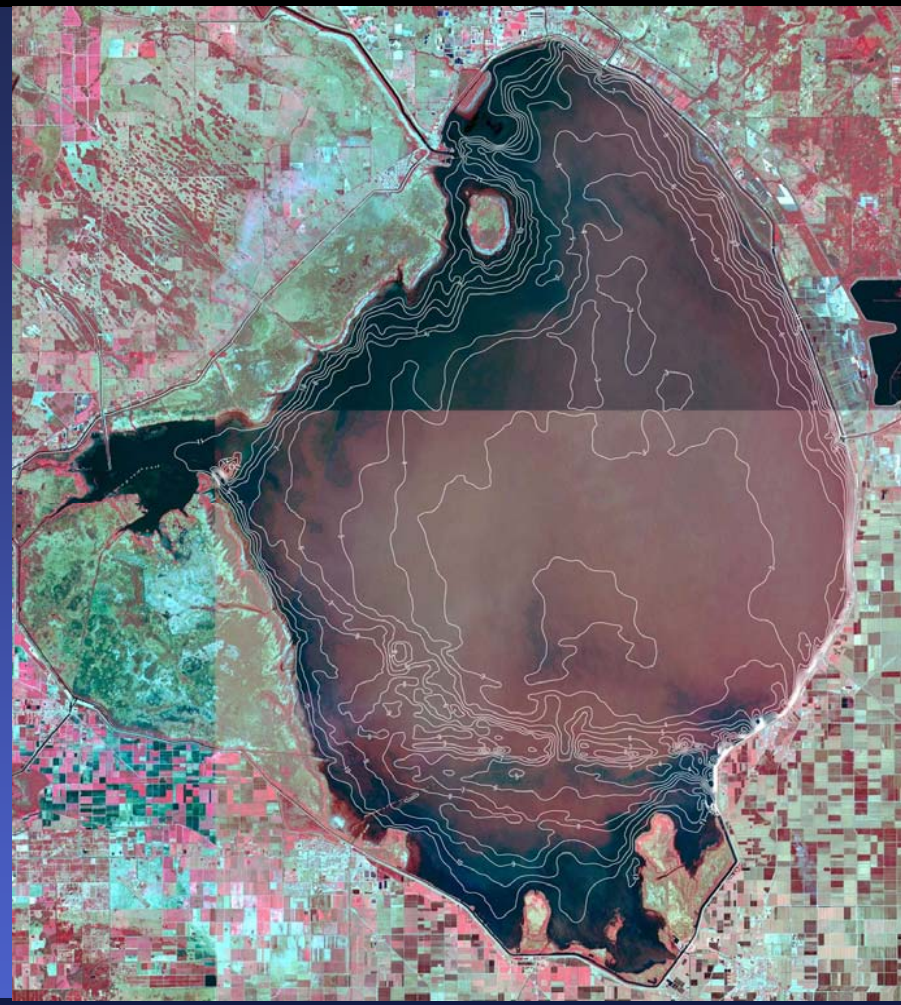
SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Water Supply Performance in the LORSS



Presentation to the
SFWMD
WATER RESOURCES ADVISORY COMMISSION
LAKE OKEECHOBEE COMMITTEE

by
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Water Supply Department

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sfwmd.gov

Overview

- Water Supply Goal
- Measures and Methods for LORSS
  - Recover Performance Measures
  - Other Performance Indicators
- Results for Base and Tentatively Selected Plan (TSP)
- Results for TSP and TSP with no Supply-Side Management Adjustment
- Key Points

Water Supply Goal

- WRDA 2000 - CERP is to provide for water supply
- State water supply goal (373.0361 F.S.)
  - The level-of-certainty planning goal associated with identifying the water supply needs of existing and future reasonable-beneficial uses shall be based upon meeting those needs for a 1-in-10-year drought event.
- Protect aquifer from degradation - e.g. MFLs (373.042 F.S.)
- Water Supply Specifically Considered in Previous Lake Regulation Schedule Evaluations

Recover Performance Measures

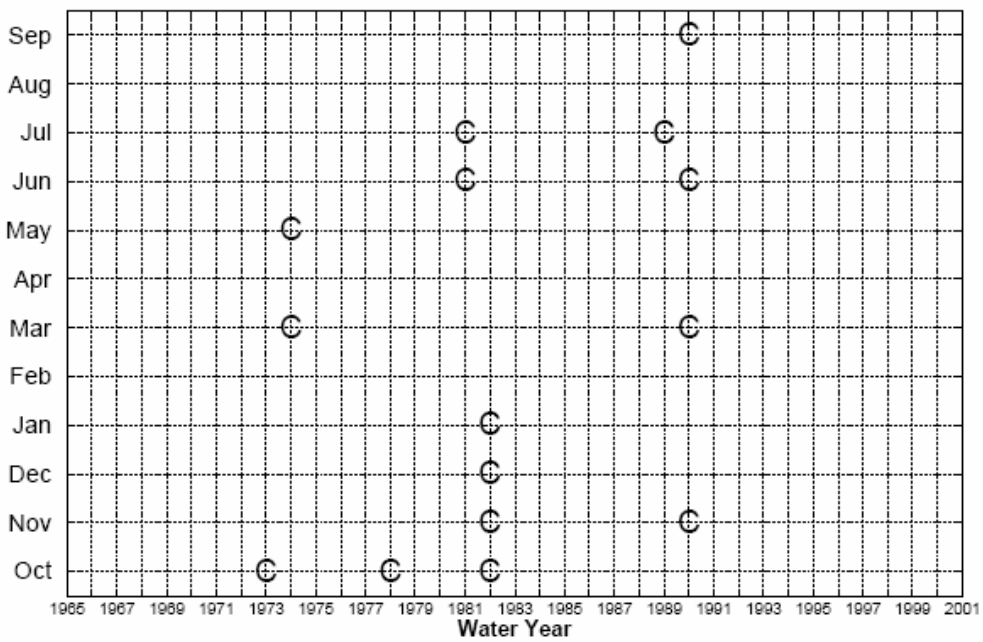
Official CERP Water Supply Performance Measures		Use in LORSS Evaluations
WS-1	Frequency of Water Restrictions for the Lake Okeechobee Service Area	✓ Frequency
		✓ Duration
		✓ Severity
WS-2	Frequency of Water Restrictions for the Lower East Coast Service Area	✓ Frequency - Lake SSM Caused
		Frequency - Coastal Caused
WS-4	Prevent Saltwater Intrusion of the Biscayne Aquifer – Meet MFL Criteria for Biscayne Aquifer	Violation of MFL for Specific Basins/Structures
WS-5	Prevent Saltwater Intrusion of the Biscayne Aquifer in South Miami-Dade County	Stage Relative to Target for Specific Basins/Structures

Other Measures

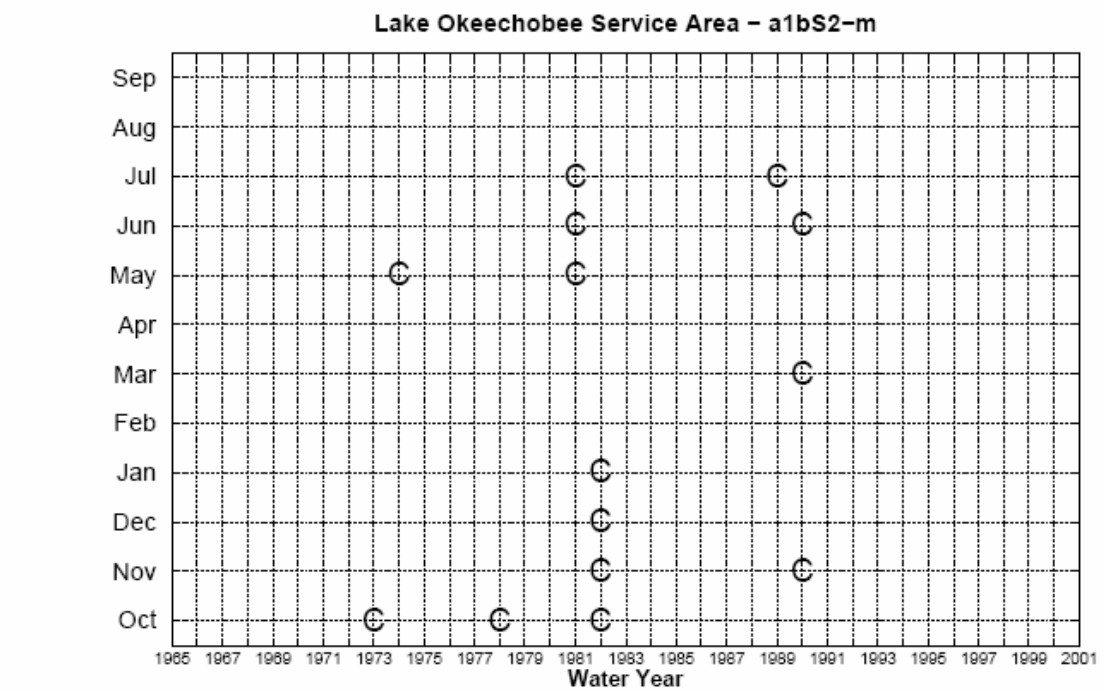
- **Other Measures Considered to Help Differentiate Among Alternatives**

Additional Supply Side Management Cutback (acre-feet)
Water Years with Supply Side Management Cutbacks >100,000 acre-feet
Water Years with Supply Side Management Cutbacks >200,000 acre-feet
EAA Percent of Demands not Met
Other LOSA Percent of Demands not Met

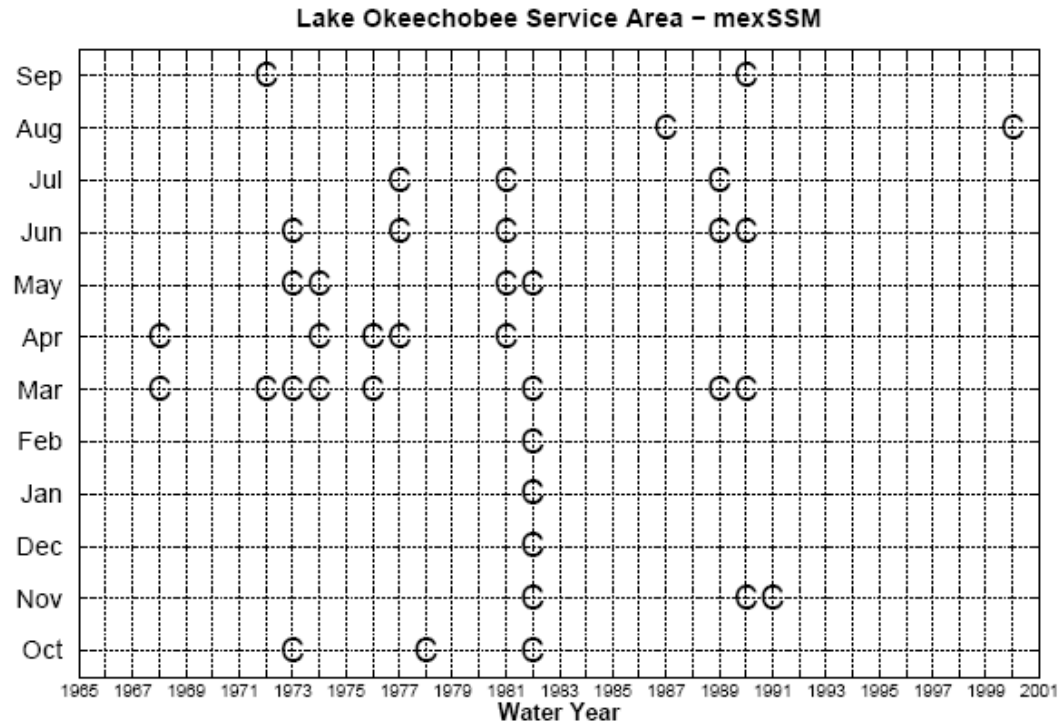
Water Restrictions Graphic LORSS Base Run



Water Restrictions Graphic TSP Run



Water Restrictions Graphic TSP ex SSM



Evaluation of TSP Compared to Base

CERP Performance Measures	LORSS Base	LORSS TSP	Result
Frequency of Water Shortages (years)	7	7	Same
Duration of Water Shortages (months)	15	14	Slightly Better
Severity of Water Shortages Score	9	10	Slightly Worse
Coastal Basin Supply Side Management Water Shortages (years with)	4	4	Same
Other Performance Indicators			
Additional Supply Side Management Cutbacks (compared to base) (acre-feet)	0	89,660	Slightly Worse
Water Years with Supply Side Management Cutbacks >100,000 acre-feet	4	3	Slightly Better
Water Years with Supply Side Management Cutbacks >200,000 acre-feet	0	1	Slightly Worse
EAA Percent of Demands not Met	4	6	Slightly Worse
Other LOSA Percent of Demands not Met	4	4	Same

Evaluation of TSP with no SSM Change Compared to TSP

CERP Performance Measures	LORSS TSP	LORSS TSP – No SSM Change	Result
Frequency of Water Shortages (years)	7	14	Much Worse
Duration of Water Shortages (months)	14	38	Much Worse
Severity of Water Shortages Score	10	22	Much Worse
Coastal Basin Supply Side Management Water Shortages (years with)	4	6	Much Worse
Other Performance Indicators			
Additional Supply Side Management Cutbacks (compared to base) (acre-feet)	89,660	1,311,440	Much Worse
Water Years with SSM Cutbacks >100,000 acre-feet	3	7	Much Worse
Water Years with SSM Cutbacks >200,000 acre-feet	1	2	Much Worse
EAA Percent of Demands not Met	6	12	Much Worse
Other LOSA Percent of Demands not Met	4	10	Much Worse

Key Point of Presentation

(Results based on SFWMM Runs)

- Water Supply Performance of Base and TSP are not Significantly Different for the Simulation Period
- Water Supply Performance will be much worse if TSP is adopted and no adjustment is made to supply-side management
- Water Supply Performance appears to be very sensitive to adjustments in supply-side management


Questions?